

What is claimed is:

1. An electronic control system comprising:

a first and a second microcomputer programmed to control a first object and a second object, respectively;

the first microcomputer having a monitor program for checking a malfunction of the second microcomputer at a predetermined interval;

the first microcomputer including timer means and timer setting means;

the timer means being for counting time, and for switching an output logic level of a port thereof when a time count reaches a predetermined value; and

the timer setting means being for setting a new time count in place of the time counted by the timer when the second microcomputer is operating normally and the monitor program executed normally.

2. An electronic control system as in claim 1, wherein:

the timer decrease the time count and switches the output logic level when the time count reaches zero; and

the timer setting means sets the new time which is longer than the predetermined interval of executing the monitor program.

3. An electronic control system as in claim 1, wherein:

the monitor program includes a first step of determining whether a calculating result by the second microcomputer is

normal, and a second step of determining whether a start timing and end timing of executing the monitor program is normal or whether an executing procedure of the monitor program is in order; and

the timer setting means sets the new time when the determination of the first and second steps are affirmative.

4. An electronic control system as in claim 1, wherein:  
the timer setting means monitors an interval of executing the monitor program and sets the new time when the interval is within an acceptable region.

5. An electronic control system as in claim 1, wherein:  
the second microcomputer is applied to a throttle control microcomputer to execute an electronic throttle control; and  
the first computer stops the electronic throttle control when the time count reaches the predetermined value.

6. An electronic control method for a system having a first microcomputer and a second microcomputer, the first microcomputer including a monitor program and a timer, the electronic control method comprising steps of:

monitoring, by the first microcomputer, an operation of the second microcomputer based on the monitor program at every predetermined interval;

counting, by the timer of the first microcomputer, time from a predetermined value which is set larger than the

predetermined interval;

checking, by the first microcomputer, whether the time counted by the counting step is within a predetermined range defined by the predetermined value and the predetermined interval; and

determining, by the first microcomputer, abnormality of execution of the monitor program when the time counted by the counting step is outside the predetermined range.

7. An electronic control method as in claim 6, further comprising steps of:

changing, by the first microcomputer, the time counted by the counting step to the predetermined value when the time counted by the counting step is within the predetermined range.

8. An electronic control method as in claim 7, wherein:  
the determining step determines the abnormality after the time counted by the counting step reaches the predetermined value.

9. An electronic control method as in claim 7, wherein:  
the determining step determines the abnormality immediately when the time counted by the counting step becomes outside the predetermined range.